

Section 2. CABIN-COCKPIT

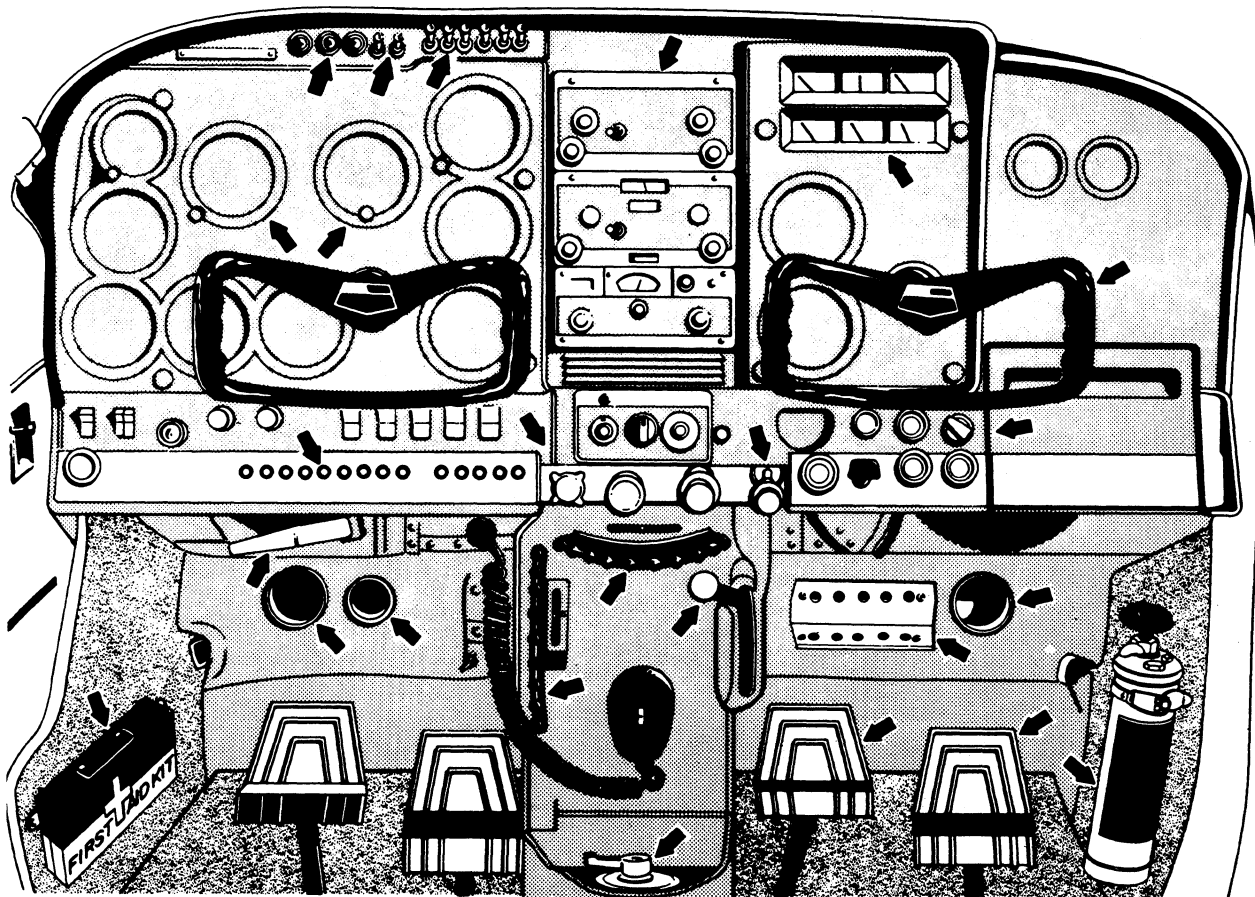
Inspect cabin and cockpit for general condition, cleanliness, and presence of loose articles which might interfere with the controls or other systems. Using a flashlight, inspect below and behind the instrument panel for loose or chafing wires, instrument line leaks, and any other defect. Check operation of controls for possible interference, full travel, abnormal wear, or other defects.

Examine the fire warning and detecting system for security of attachment and general

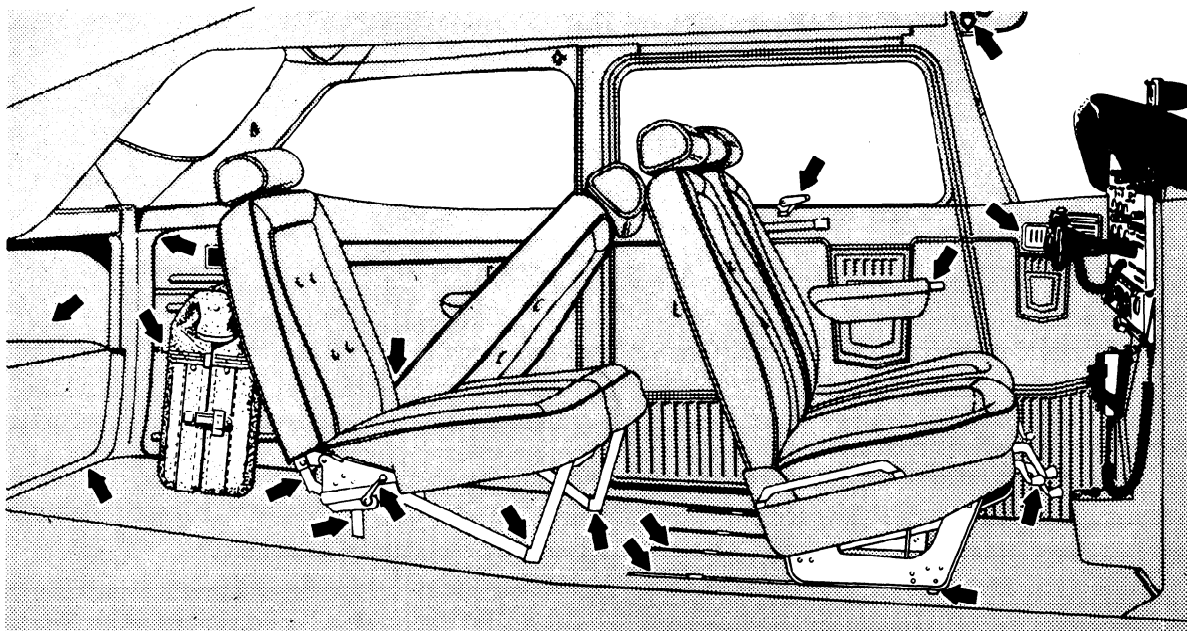
condition. Ensure that wires connecting the sensing devices and the indicating instrument show no evidence of chafing or deterioration.

Inspection and maintenance of fire extinguishers should be in accordance with the manufacturer's instructions attached to the extinguisher unit. Ensure that the extinguisher is fully charged. Inspect for general condition and security of attachment.

Inspect the cabin heating and ventilating system for leakage and condition of units, lines,



2-1. Inspection chart - cockpit.



2-2. Inspection chart – cabin.

and fittings. Check system operation by moving the controls to make certain they function properly.

Carefully observe that no flammable material is in the vicinity of the heaters and exhaust lines or ports.

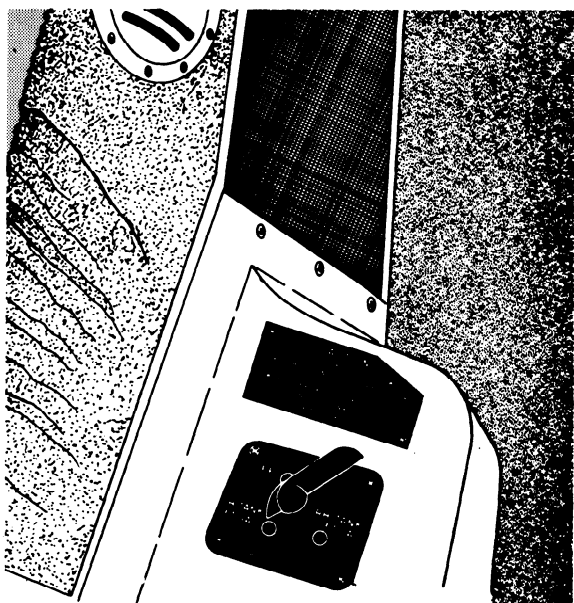


FIGURE 2-3. Operational check – fuel tank selector valve.

Check fuel selector valves for leaks, freedom of movement, positive detents, smooth operation, security of mounting, and placards. Any defects noted should be corrected immediately by a person authorized in FAR 43.

Check engine primer assembly for leaks and operation. Inspect the entire fuel system for general condition, mounting, and freedom from leaks.

Inspect electric wire bundles for general condition, chafing, and routing. Examine connections at terminals, junction boxes, cannon plugs, and clips for looseness and defects. Check condition of circuit breakers, fuses, switches, voltage regulators, and reverse current relays.

Fuse clips (including spares) must be free from corrosion and hold fuses securely, yet permit easy removal. Replace burned out fuses with fuses of proper type and capacity. Replace any fuses used from the supply of spare fuses.

Inspect the hydraulic system reservoir for general condition, security of attachment, and proper fluid level. Examine the pressure accumulator for defects. Check pumps for security of mounting and condition. Inspect

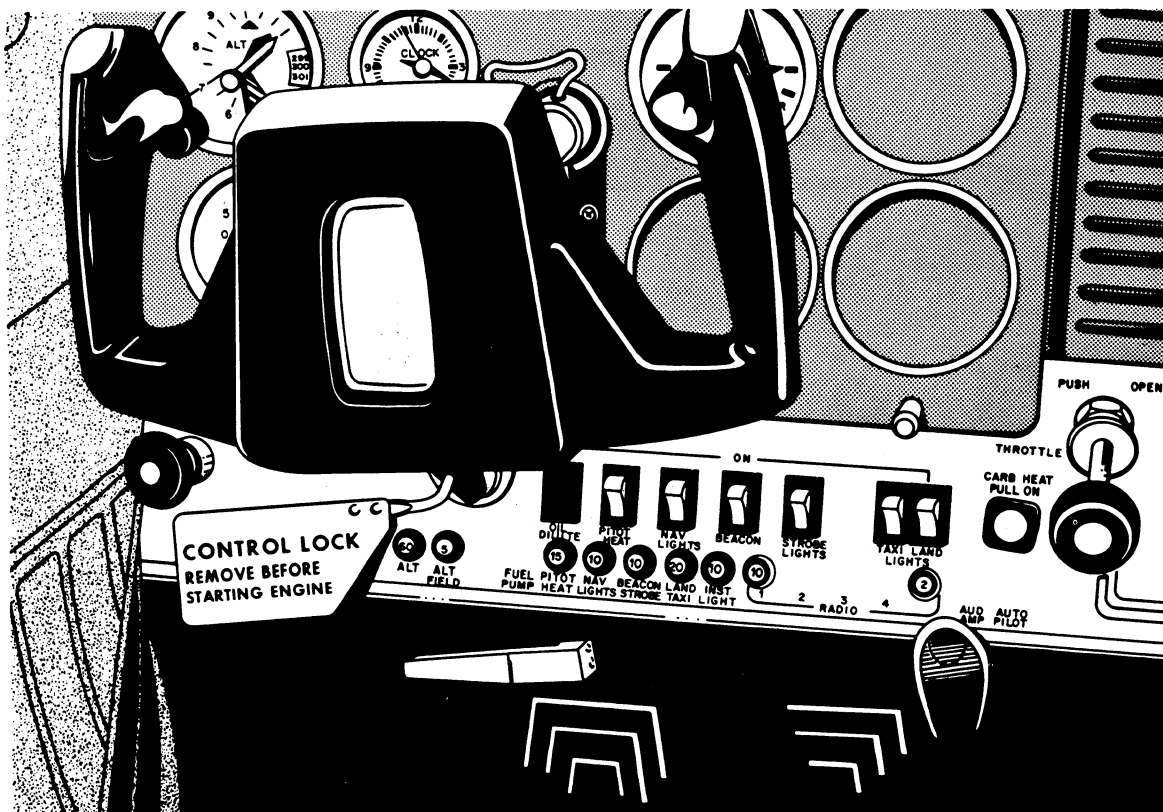


FIGURE 2-4. Circuit breaker and fuse panel.

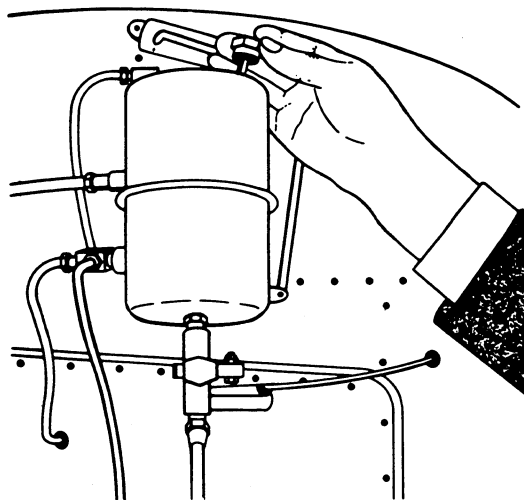


FIGURE 2-5. Check quantity hydraulic fluid.

bypass valves and relief valves for leaks. Ensure that lines are properly secured and free from leaks, dents, kinks, cracks or chafing. Check hydraulic brake master cylinder for fluid level and leaks.

Air and dirt in hydraulic systems are the most frequent causes of faulty operation. Air causes faulty release, irregular pressure, and noisy operation. Dirt and grit affect valve operation and produce leakage by cutting the various packings throughout the system.

When replenishing hydraulic fluid, NEVER mix dissimilar hydraulic fluids. This "mixing" can result in complete system failure. Avoid spilling fluid when servicing hydraulic systems since some of these fluids severely damage paints and electrical insulation material.

Inspect all instruments for security of attachment, cleanliness, legibility of dial markings, security of glass dial covers, proper markings, and general appearance. The magnetic compass should be checked regularly for proper fluid level and accuracy. Check instrument panel indicating and warning lights for operation, condition, and security. Replace inoperative indicator bulbs. Vacuum lines that

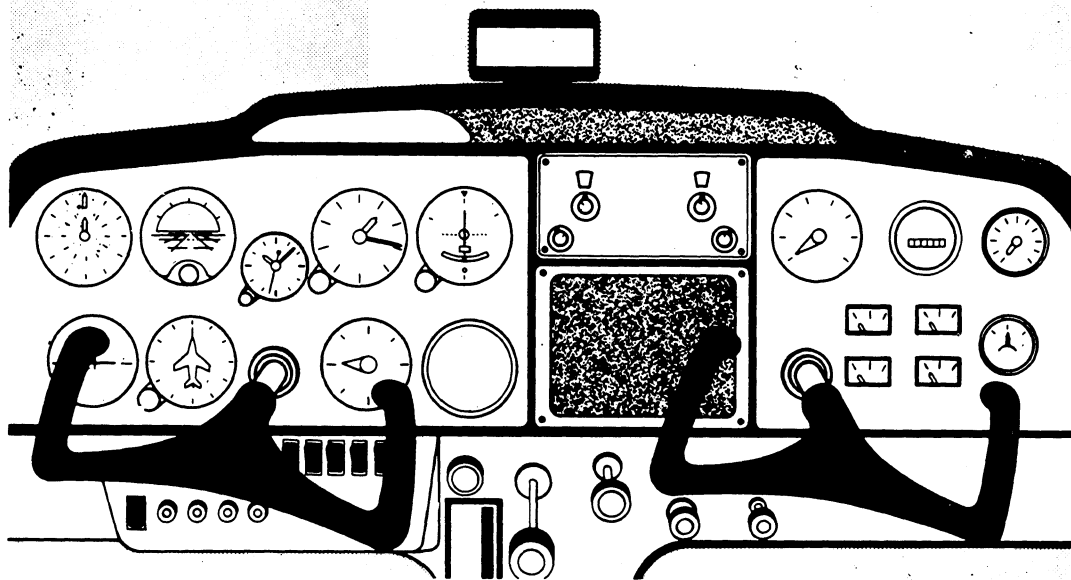


FIGURE 2-6. Instrument panel.

show signs of deterioration should be replaced. Inspect the instrument panel for freedom of movement and the shock mounts for signs of deterioration. If the instrument panel is equipped with shock mounts, the panel should not come in contact with any part of the aircraft structure, line, or component, rigidly attached to the aircraft structure.

When suspected of malfunctioning, the flight instruments should be removed and bench tested by a certified repair station or tested with a portable ground test unit. A periodic

check of vacuum operated instruments is recommended to detect erratic operation. Dirty filters should be replaced. Known or suspected malfunctioning instruments should be removed and replaced, prior to further operation of the aircraft.

Inspect all controls linkages for proper functioning and general condition. Check cables for frayed strands and proper tension. Examine pulleys and fairleads for misalignment, breakage, or looseness. Inspect bellcranks and torque tubes for alignment, cracks, freedom of movement, and proper safetying. Determine that the pulleys and fairleads, through which the control cables pass, are clean and that the

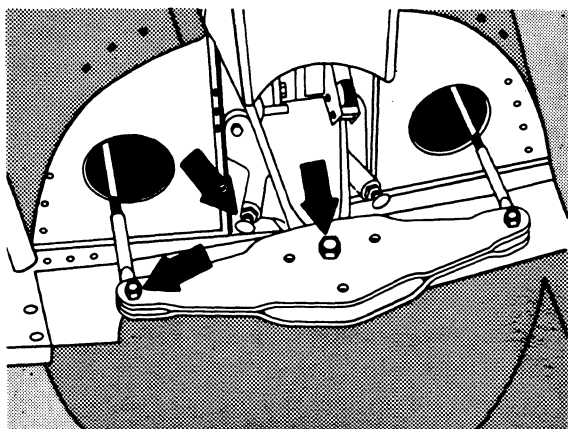


FIGURE 2-7. Bellcrank checkpoints.

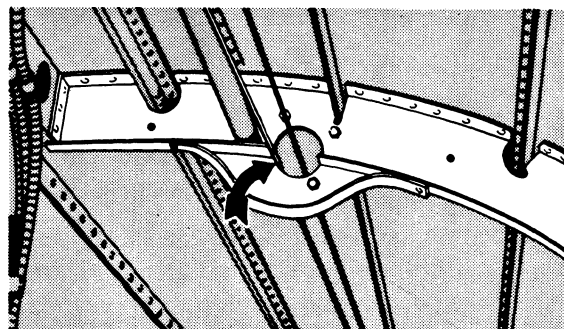


FIGURE 2-8. Cable rubbing bulkhead.

surrounding structure does not interfere with their movement. Operate the controls to be sure there is no lost motion, binding, or chafing.

If inspection reveals that cables or control rods have been chafing against some portion of the structure, they should be realigned. If further inspection reveals the cables or control rods to be worn beyond an acceptable limit, they should be replaced.

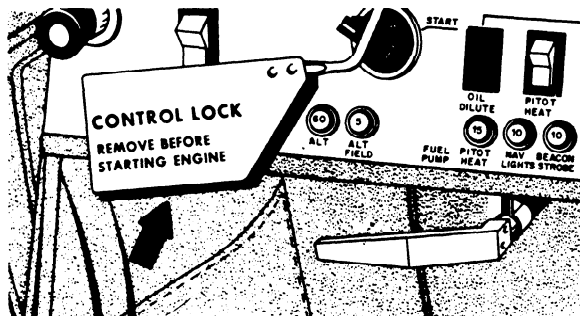


FIGURE 2-9. Gustlock.

Inspect gust locks for condition. Ensure that they release completely and cannot inadvertently engage.

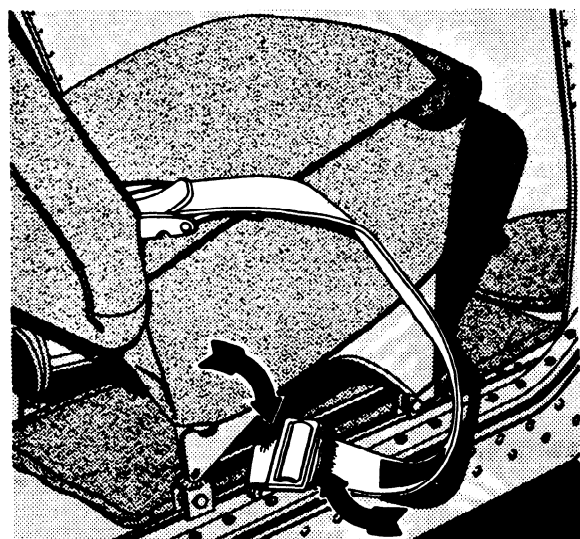


FIGURE 2-10. Frayed safety belt.

Safety belts and shoulder harnesses that show evidence of cuts or fraying should be removed and replaced with approved-type belts.



FIGURE 2-11. Safety harness.

Inspect all safety belts and shoulder harnesses for excessive exposure to the deteriorating effects of sunrays, acid and dirt. Make certain the latching devices are in good condition and operating satisfactorily. Ensure that all fittings and attachment parts are secure and in good condition.

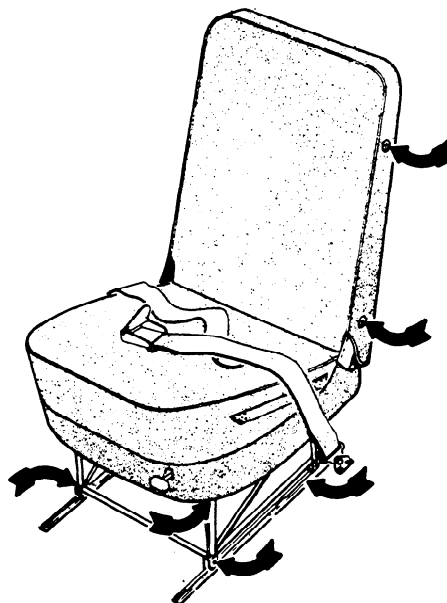


FIGURE 2-12. Inspection items on seat.

Inspect all seats and seat tracks for security of attachment, condition, and function of adjusting mechanisms. Floor carpets should be removed to permit inspection of the floor and associated structures to which seat and seat tracks are attached. This is the appropriate time to remove floor access covers and inspect floor substructure, controls, etc., below the floor.

Inspect all windows, windshield, and canopies for cracks, cleanliness, freedom of operation, and general condition. If your aircraft is pressurized, even minor flaws in windows, their attachments, and operating mechanisms can be critical. If there is any question, acquire the services of a certificated mechanic or repair station.